

Notice of Allowability

Application No.

10/707,559

Examiner

Tarifur R. Chowdhury

Applicant(s)

WU ET AL.

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 08/18/05.
2. ☒ The allowed claim(s) is/are 1-9, 11, 12 and 14-16.
3. ☒ The drawings filed on 21 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Scott Margo on August 29, 2005.

The application has been amended as follows:

Claims 17 and 18 have been canceled.

Election/Restrictions

Claim 1 is allowable. Accordingly, since claim 4 depends from claim 1, is no longer withdrawn and rejoined.

Allowable Subject Matter

1. Claims 1-9, 11, 12 and 14-16 are allowed.
2. The following is an examiner's statement of reasons for allowance:
3. The prior arts of record do not anticipate or render obvious to one skilled in the art an in-plane switching mode liquid crystal display comprising various elements as claimed, more specifically the limitations such as a plurality of bumps formed beneath the first electrode and the second electrode for changing the distribution of the biased electric field to enhance the driving ability of the biased electric field and a conductive layer disposed on a surface of each bump, and wherein a longitudinal axis of the liquid crystal molecules is positioned along a second direction and is horizontally arranged between the two substrates, and an angle is formed between the second direction and the first direction, are considered novel.
4. USPAT 6,583,840 discloses an in-plane switching mode liquid crystal display device wherein a pixel electrode and a common electrode are alternatively formed on a plurality of bumps. Further, USPAT 6,351,300 discloses an in-plane switching mode liquid crystal display wherein a plurality of bumps is formed beneath the first electrode and the second electrode. USPAT 6,356,328 discloses an in-plane switching mode liquid crystal display wherein the pixel electrodes and the common electrodes are formed as projections. However, all of the reference alone or in combination with any other prior art references fail to teach or suggest that the electrodes being a protrusion

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elongated along a first direction and a second direction respectively and that the plurality of bumps change the distribution of the biased electric field as well as the limitation such as a longitudinal axis of the liquid crystal molecules is positioned along a second direction and is horizontally arranged between the two substrates, and an angle is formed between the second direction and the first direction.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R. Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

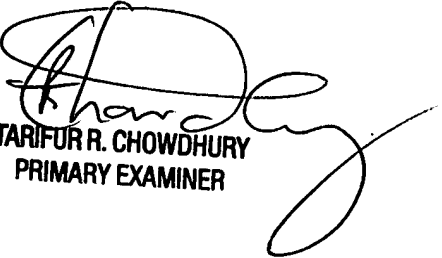
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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August 29, 2005



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER